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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/118,572 07/17/98 WOOD

K PHB34169US

LM02/0707

EXAMINER

YANG, R

ART UNIT	PAPER NUMBER
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2779

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DATE MAILED: 07/07/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)
	09/118,572	WOOD ET AL.
Examiner	Art Unit	
Ryan R Yang	2779	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) Responsive to communication(s) filed on ____ .
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-11 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) The proposed drawing correction filed on ____ is: a) approved b) disapproved.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) All b) Some * c) None of the CERTIFIED copies of the priority documents have been:
1. received.
2. received in Application No. (Series Code / Serial Number) ____ .
3. received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) Notice of References Cited (PTO-892)
- 16) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .
- 18) Interview Summary (PTO-413) Paper No(s). ____ .
- 19) Notice of Informal Patent Application (PTO-152)
- 20) Other: _____

DETAILED ACTION

1. Claims 1-11 are pending in this application. Claim 1 is independent claim.

In the Pre-Amendment filed on 7/17/00, claims 1, 4 and 11 were amended.

This application claims foreign priority dated 7/17/97.

2. The present title of the invention is "Graphic Image Texture Generation".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al. (5,812,141).

As per claim 1, Kamen et al., hereinafter Kamen, disclose an apparatus for texture mapping, as illustrated at Figure 4, using a predetermined set of standardized textures (30). The apparatus has input (92) to receive data identifying one of the sets of standardized textures, and means for processing the data (4). The texture mapping controller (90) would receive control signals (92) then determine the computation methods (column 6, line 26 – 36).

It is recognized that, in Figure 4, Kamen uses texture lookup table for texture determination, however, he also discloses in column 2, line 31 – 39 that the texture can also be derived by the means of procedural texturing.

As per claim 2, the input control signals are plural (column 10, line 14 – 18).

As per claim 3, Kamen discloses his control signals include quality of texture (column 11, line 47 – 54).

As per claim 4, Kamen discloses, in his texture mapping controller, a computation method selection device (column 10, line 31 – 49) to generate pixel value. It is obvious that his method can also be used to generating procedural textures of the standardized set.

As per claim 7, it is notoriously known in the art (Officially noted) that a processor of many elements can be fabricated onto a single substrate for the purposes of increased processing speed and reducing power and cost.

As per claim 9, the input to Kamen's apparatus (Figure 4; 42) are lines and polygons (column 6, line 25 – 26). Since Kamen talks about texture in terms of "viewpoint", "perspectives" and "coordinate space" (column 1, lines 45 and 60), it is obvious that Kamen is talking about 3-dimensional polygons. Kamen also discloses means to convert 3-D data into 2-D (Figure 4; 2, 3), program command (Figure 4; select signal), and rendering means (Figure 4; 34, 28 and 6) to generate an output image with texture applied.

As per claim 10, it is well known in the art (Officially noted) that the polygon data and program commands can be stored in remote location and its location stored in a local memory to be retrieved at a later time.

5. Claims 5-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al. as applied to claims 1-4, 7 and 9-10 above, and further in view of Griffin et al. (5,880,737).

As per claim 5, Kamen discloses a texture mapping apparatus with procedural texture and control signals. It is noted that Kamen does not disclose using a cache to store texture maps, however, this is known in the art as taught by Griffin et al., hereinafter Griffin. Griffin discloses that in order to reduce latency in memory accessing, textual samples can be stored in the texture cache (column 18, line 35 – 39).

It would have been obvious to one of ordinary skill in the art at the time of invention to include a texture cache as in Griffin into the invention of Kamen to reduce memory access latency.

As per claim 6, Kamen discloses his texture mapping apparatus has control for texture quality (column 11, line 47 – 54). It is notoriously known in the art (Officially noted) to place an interpolator after the texture map for refining the texture quality.

As per claim 8, it is notoriously known in the art (Officially noted) that a processor of many elements can be fabricated onto a single substrate for the purposes of increased processing speed and reducing power and cost.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al. as applied to claims 1-4, 7 and 9-10 above, and further in view of Tremblay et al. (5,925,123).

As per claim 11, Kamen discloses an apparatus with texture rendering means and control signals. It is noted that Kamen does not explicitly teach the program commands are transmitted over the network in virtual machine code and a processor to convert the program commands to local machine codes, however, this is known in the art as taught by Tremblay et al., hereinafter Tremblay. Tremblay discloses a processor (Figure 6B; 635) to decode instruction transmitted over the network and convert it to local machine code.

It would have been obvious to one of ordinary skill in the art at the time of invention to include a processor locally as taught in Tremblay into the invention of Kamen in order to translate the instructions into local machine code in a network environment.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inquiries

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan R Yang whose telephone number is (703) 308-6133. The examiner can normally be reached on 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Powell can be reached on (703) 305-9703. The fax

phone numbers for the organization where this application or proceeding is assigned are (703) 308-6606 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Ryan Yang
June 22, 2000



MARK R. POWELL
SUPERVISORY PATENT EXAMINER
GROUP 2700